

Remarks

Appellant has amended the claims to more accurately define Applicant's invention. More specifically Applicant has cancelled Claims 1, 4, 14-19 and added new Claims 20-25. No additional claim fee is required. In addition, Applicant elects Species A, Figures 1, 2 and 4 with traverse. Figure 3 shows the apparatus of Figure 1, 2 and 4 used on a portable container that is a canteen. The embodiment of Figure 3 should be included with Figures 1, 2 and 4 particularly in view of the dependency of claim 11 on claim 20.

Applicant's invention is directed to an apparatus for cooling a liquid in a portable container. The portable container has a body for holding the liquid and an opening for removing the liquid from the container. The apparatus of the present invention comprises a housing having a top end and a bottom end where the bottom end is adapted to be removably secured to the opening in the portable container. In the housing there is a receptacle containing a compressed gas and a valve means for releasing the compressed gas. The receptacle has an exterior surface that has a first temperature prior to a release of compressed gas through the valve and a second lower temperature after release of compressed gas. The exterior surface of the receptacle cools the liquid in the portable container as a user drinks the liquid flows because the liquid flows between the housing and the exterior surface of the receptacle.

There are substantial differences between the claimed invention and the disclosure in Solhkhah's U.S. Patent No. 3,525,236. First, in the current invention, a cooling device is removably attached externally to the opening in a portable container. The apparatus disclosed in the '236 is not external to the receptacle holding the beverage.

Solhkhah specifically describes the location of a cooling device as being inside the container and there is no suggestion that the cooling device be outside the container. The device of U.S. Patent No. 3,525,236 cools the entire compartment that contains the liquid. The user must therefore drink the entire contents at one time to take advantage of that patent's cooling features. The current invention, on the other hand, employs a removable, external attachment of a cooling device which cools only the portion of a liquid that flows through such device from a portable container thus providing a cooling effect, not to an entire contents of a portable container, but only to an amount of a liquid to be consumed. Thus the user can have multiple drinks of cooled liquid over a period of time.

There is a need, particularly for canteens, to provide cooled water at different times. Thus, to cool entire supply of a liquid in a container as taught by the Solhkhah '236 patent may be wasteful of compressed gas. In addition, it is unlikely that the whole content of a portable container would be consumed at once. When the user later seeks a cool drink, the '236 patent does not permit that to happen, and the unconsumed liquid would eventually revert to a warmer temperature. In the '236 patent the supply of compressed gas would be exhausted after the initial release, and there is no ability to cool later drinks using the teachings of the patent. Another disadvantage of the '236 patent is the internal location of the cooling device. This location is crucial to the purpose and intent of the '236 patent's cooling mechanism and to move it would defeat the purpose of the Patent No. 3,525,236 which is to provide a portable cooling device that cools an entire container. The current invention permits more smaller consumption of the compressed gas in an initial release. In addition, the current invention may be

equipped with conventional spray release valve where a gas may be released from a can by pressing or moving a push-button. Such valve permits repeated releases of the compressed gas that U.S. Patent No. 3,525,236 does not. Second, in order to cool only the portion of the liquid to be consumed, the smaller amount gas would be necessary to be released rather than to cool the entire liquid supply. Thus, under the current invention the supply of compressed gas would last much longer than under embodiment employed in Patent No. 3,525,236.

Another advantage of the present invention over the prior art is that the current invention provides easy replacement of the cooling device in case a compressed gas receptacle is exhausted. The present invention simply requires removing a can with consumed gas and substituting it with a new one. This simple manipulation would not affect the remaining supply of drinking liquid in the attached portable container and consumption of such liquid may be resumed as soon as a cooling device is replaced. However, the invention embodied in Patent No. 3,525,236 does not provide such convenience. As soon as a gas contained in the compression camera is consumed, the remaining liquid would not be cooled off anymore because of the inability to replace the cooling device. In such case, liquid in a container would not be cold anymore and such absence of a gas would defeat the purpose of that invention. For that reason, the current invention provides substantially efficient consumption of drinking liquid and cooling feature of the device, essential characteristics of such cooler.

The other references cited by the Examiner, namely U.S. Patent Nos. 5,065,879 to King, 6,039,207 to Adamek, and 6,318,453 to Ovshinsky do not overcome the deficiencies of the '236 patent discussed above.

For the reasons stated above, applicant requests reconsideration and allowance of the present application.

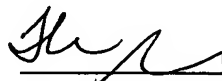
Respectfully submitted,



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CERTIFICATE OF MAILING

I hereby certify that the foregoing Response was mailed by first class mail, postage prepaid, in an envelope addressed to the Hon. Commissioner of Patents, Alexandria, VA 22313, this 23th day of December, 2004.



Thomas A. O'Rourke



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,369	09/16/2003	Alexander Boukas		1631

7590 09/29/2004
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EXAMINER

ALI, MOHAMMAD M

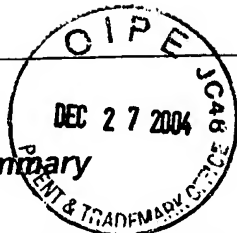
ART UNIT PAPER NUMBER

3744

DATE MAILED: 09/29/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary



Application No.

10/663,369

Applicant(s)

BOUKAS, ALEXANDER

Examiner

Mohammad Ali

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 September 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) 11, 12 and 14-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 11, 12 and 14-19 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____



DETAILED ACTION

Election/Restrictions

This application contains claims directed to the following patentably distinct species of the claimed invention:

Species A: Fig. 1-2 and 4;

Species B: Fig. 3 and

Species C: Fig. 5.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, none of the claim is generic.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

During a telephone conversation with Thomas A. O'Rourke on 09/24/04 a provisional election was made without traverse to prosecute the invention of SPECIES A, claim 1-10 and 13. Affirmation of this election must be made by applicant in replying to this Office action. Claims 11-12 and 14-19 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2, 6-7, 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Solhkhah (3,525,236). Solhkhah discloses a portable self cooling device for cooling a liquid in a portable container 10 comprising a housing/cylinder housing 20, the housing 20 having a top end with opening 48 and a bottom end/surface 42 adapted to attach to

the portable container 10, a can 18 of compressed gas within the housing 20, the can having a release valve/removable tap 49 to expel the compressed gas; and a heat exchanger/radiator means 45 around an exterior surface of the can 18, the heat exchanger 45 adapted to absorb heat from a warm liquid. See Fig. 2, 3 and column 4, lines 2-14. The numeral 18 in Fig. 3 defines as an expansion valve forming at the opening 48 when tap 49 is removed.

Claim Rejections - 35 USC § 103

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

Claims 3, 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Solhkhah. Solhkhah discloses the invention substantially as claimed as stated above. However, Solhkhah does not disclose a bevel opening, a copper heat exchanger and an open container. Solhkhah discloses an opening 50 for pouring beverages or any liquids for serving the same purpose of the claimed invention, radiator 45 or fins 46 constructed of a metallic material having superior heat conduction properties such as aluminum obviously indicating the material can be copper too and the container 11 may be kept open by removing or without providing closure 52 and it will still serve the same purpose of the claimed invention. Therefore, choosing bevel shape opening pouring and drinking liquid, copper or aluminum heat exchanger, open or closed container is an

obvious choice of the individual skilled in the art since there is no criticality or unexpected result from it.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Solhkhah in view of King (5,065,879). Solhkhah discloses the invention substantially as claimed as stated above. However, Solhkhah does not disclose a threaded housing. King teaches the use of a threaded housing with bottom threads 25 with a beverage container 1 for the purpose of fixing the base 5 with other support or device. See Fig. 1. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the portable cooling device of Solhkhah in view of King such that a threaded housing could be provided in order to fix the base with some device.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Solhkhah in view of Adamek (6,039,207). Solhkhah discloses the invention substantially as claimed as stated above. However, Solhkhah does not disclose a rubber housing. Adamek teaches the use of a rubber housing 4 for a beverage container 12 for the purpose of holding a can/container. See Fig. 1 and 2. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the portable cooling device of Solhkhah in view of Adamek such that a rubber housing could be provided in order to hold a can/container.

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Solhkhah in view of Ovshinsky et al., (6,318,453). Solhkhah discloses the invention substantially as claimed as stated above. However, Solhkhah does not disclose a porous mesh.


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Ovshinsky et al., teach the use of a porous mesh in a cooled storage system for the purpose of cooling hydrogen gas. See Fig. 2 and claim 12. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the portable cooling device of Solhkhah in view of Ovshinsky et al., such that a porous mesh could be provided in order to cool the liquid.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mohammad Ali whose telephone number is 703-308-5032. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Esquivel Denise can be reached on 703-308-2597. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Mohammad m. Ali
September 24, 2004



NOTICE OF DRAFTSPERSON'S PATENT DRAWING REVIEW

The drawing(s) filed (insert date) 12/31/03 are:

- A. ☐ approved by the Draftsperson under 37 CFR 1.84 or 1.152.
 B. ☒ objected to by the Draftsperson under 37 CFR 1.84 or 1.152 for the reasons indicated below. Corrected drawings are required.

1. DRAWINGS. 37 CFR 1.84(a): Acceptable categories of drawings: Black ink or Color (3 sets required).

☐ Color drawings are not acceptable until petition is granted. Fig(s) _____
☐ Pencil and non black ink not permitted. Fig(s) _____

2. PHOTOGRAPHS. 37 CFR 1.84(b)
☐ One (1) full-tone set is required. Fig(s) _____
☐ Photographs may not be mounted. 37 CFR 1.84(c)
☐ Photographs must meet paper size requirements of 37 CFR 1.84(f). Fig(s) _____
☐ Poor quality (half-tone). Fig(s) _____

3. TYPE OF PAPER. 37 CFR 1.84(e)
☐ Paper not flexible, strong, white, and durable. Fig(s) _____
☐ Erasures, alterations, overwritings, interlineations, folds, copy machine marks not accepted. Fig(s) _____

4. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes:
 21.0 cm by 29.7 cm (DIN size A4) or
 21.6 cm by 27.9 cm (8 1/2 x 11 inches)
☐ All drawing sheets not the same size. Sheet(s) _____
☐ Drawings sheets not an acceptable size. Fig(s) _____

5. MARGINS. 37 CFR 1.84(g): Acceptable margins:
 Top 2.5 cm Left 2.5 cm Right 1.5 cm Bottom 1.0 cm
☐ Margins not acceptable. Fig(s) _____
☐ Top (T) ☐ Left (L)
☐ Right (R) ☐ Bottom (B)

6. VIEWS. 37 CFR 1.84(h)
 REMINDER: Specification may require revision to correspond to drawing changes, e.g., if Fig. 1 is changed to Fig. 1A, Fig. 1B and Fig. 1C, etc., the specification, at the Brief Description of the Drawings, must likewise be changed.
☐ Views not labeled separately or properly. Fig(s) _____

7. SECTIONAL VIEWS. 37 CFR 1.84(h)(3)
☐ Sectional designation should be noted with Arabic or Roman numbers. Fig(s) _____

8. ARRANGEMENT OF VIEWS. 37 CFR 1.84(i)
☐ Words do not appear on a horizontal, left-to-right fashion when page is either upright or turned so that the top becomes the right side, except for graphs. Fig(s) _____

9. SCALE. 37 CFR 1.84(k)
☐ Scale not large enough to show mechanism without crowding when drawing is reduced in size to two-thirds in reproduction. Fig(s) _____

10. CHARACTER OF LINES, NUMBERS, & LETTERS. 37 CFR 1.84(l)
☒ Lines, numbers & letters not uniformly thick and well defined, clean, durable, and black (poor line quality). Fig(s) 1-5

11. SHADING. 37 CFR 1.84(m)
☐ Solid black areas pale. Fig(s) _____
☒ Solid black shading not permitted. Fig(s) 2, 3

12. NUMBERS, LETTERS, & REFERENCE CHARACTERS. 37 CFR 1.84(p)
☐ Numbers and reference characters not plain and legible. Fig(s) _____
☐ Figure legends are poor. Fig(s) _____
☐ Numbers and reference characters not oriented in the same direction as the view. 37 CFR 1.84(p)(1) Fig(s) _____
☐ English alphabet not used. 37 CFR 1.84(p)(2) Fig(s) _____

☐ Numbers, letters and reference characters must be at least 32 cm (1/8 inch) in height. 37 CFR 1.84(p)(3). Fig(s) _____

13. LEAD LINES. 37 CFR 1.84(q)
☐ Lead lines missing. Fig(s) _____

14. NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.84(t)
☐ Sheets not numbered consecutively, and in Arabic numbers beginning with number 1. Sheet(s) _____

15. NUMBERING OF VIEWS. 37 CFR 1.84(u)
☐ Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) _____

16. DESIGN DRAWINGS. 37 CFR 1.152
☐ Surface shading shown not appropriate. Fig(s) _____
☐ Solid black surface shading is not permitted except when used to represent the color black as well as color contrast. Fig(s) _____

COMMENTS:

Reviewer SON LAM

If you have questions, call (703) 305-5404.

308-0366Date 09/23/04

Attachment to Paper No. _____

**Notice of References Cited**

Application/Control No.

10/663,369

Applicant(s)/Patent Under

Reexamination

BOUKAS, ALEXANDER

Examiner

Mohammad Ali

Art Unit

3744

Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
	A	US-3,525,236	08-1970	SOLHKHAH NARIMAN	62/294
	B	US-5,065,879	11-1991	King, Byron	220/739
	C	US-6,039,207	03-2000	Adamek, Thad R.	220/739
	D	US-6,318,453	11-2001	Ovshinsky et al.	165/104.12
	E	US-6,615,607	09-2003	Lee, Sun-Gyou	62/440
	F	US-2003/0159448	08-2003	Lee, Jung Min	62/60
	G	US-5,692,381	12-1997	Garrett, Michael E.	62/60
	H	US-4,640,101	02-1987	Johnson, Ken A.	62/294
	I	US-5,845,501	12-1998	Stonehouse et al.	62/62
	J	US-5,497,918	03-1996	Brilanchik, Menachem	222/626
	K	US-3,747,365	07-1973	Nicholds, Kenneth Edmund	62/51.2
	L	US-5,447,039	09-1995	Allison, Robert S.	62/293
	M	US-5,718,124	02-1998	Senecal, Lise	62/457.6

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N	gb 2169693 a	07-1986	uk	Qun-min lu	
	O	JP 06074585 A	03-1994	Japan	Goto et al.	
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.